

WHAT IS CLAIMED IS:

1. A display device comprising:

a first substrate having a pixel matrix region;

a switching thin film transistor provided over the first substrate in the pixel matrix region;

a pixel electrode connected to the switching thin film transistor and provided over the first substrate in the pixel matrix region;

a second substrate comprising an insulator provided over the first substrate outside the pixel matrix region;

a drive circuit for driving the pixel matrix region, the drive circuit provided over the second substrate;

a plurality of first lead wirings provided outside the pixel matrix region over the second substrate and connected to the drive circuit;

a plurality of second lead wirings provided over the first substrate and extending from the pixel matrix region toward the second substrate;

second electrode pads arranged at end portions of the plurality of second lead wirings;

first electrode pads having an area smaller than that of the second electrode pads and arranged at end portions of the plurality of first lead wirings; and

a conductive member provided over the first substrate, and connecting at least one of the first electrode pads with corresponding one of the second electrode pads,

wherein contiguous ones of the first electrode pads with each other are shifted periodically in a direction of a side of the second substrate.

2. A display device comprising:

a first substrate having a pixel matrix region;

a switching thin film transistor provided over the first substrate in the pixel matrix region;

a pixel electrode connected to the switching thin film transistor and provided over the first substrate in the pixel matrix region;

a second substrate comprising an insulator provided over the first substrate outside the pixel matrix region;

a drive circuit for driving the pixel matrix region, the drive circuit provided over the second substrate;

a plurality of first lead wirings provided outside the pixel matrix region over the second substrate and connected to the drive circuit;

a plurality of second lead wirings provided over the first substrate and extending from the pixel matrix region toward the second substrate;

second electrode pads arranged at end portions of the plurality of second lead wirings;

first electrode pads having an area smaller than that of the second electrode pads and arranged at end portions of the plurality of first lead wirings; and

a conductive member provided over the first substrate and connecting at least one of the first electrode pads with corresponding one of the second electrode pads,

wherein every three contiguous ones of the first electrode pads with each other, a unit shift arrangement thereof is repeated and has three of the first electrode pads shifted in a direction of a side of the second substrate.

3. A display device comprising:

a first substrate having a pixel matrix region;

a switching thin film transistor provided over the first substrate in the pixel matrix region;

a pixel electrode connected to the switching thin film transistor and provided over the first substrate in the pixel matrix region;

a second substrate comprising an insulator provided over the first substrate outside the pixel matrix region;

a drive circuit for driving the pixel matrix region, the drive circuit provided over the second substrate;

a plurality of first lead wirings provided outside the pixel matrix region over the second substrate and connected to the drive circuit;

a plurality of second lead wirings provided over the first substrate and extending from the pixel matrix region toward the second substrate;

first electrode pads arranged at end portions of the plurality of first lead wirings;

second electrode pads having an area smaller than that of the first electrode pads and arranged at end portions of the plurality of second lead wirings; and

a conductive member provided over the first substrate and connecting at least one of the first electrode pads with corresponding one of the second electrode pads,

wherein contiguous ones of the first electrode pads with each other are shifted in a direction of a side of the second substrate.

4. A display device comprising:

a first substrate having a pixel matrix region;

a switching thin film transistor provided over the first substrate in the pixel matrix region;

a pixel electrode connected to the switching thin film transistor and provided over the first substrate in the pixel matrix region;

a second substrate comprising an insulator provided over the first substrate outside the pixel matrix region;

a drive circuit for driving the pixel matrix region, the drive circuit provided over the second substrate;

a plurality of first lead wirings provided outside the pixel matrix region over the second substrate and connected to the drive circuit;

a plurality of second lead wirings provided over the first substrate and extending from the pixel matrix region toward the second substrate;

first electrode pads arranged at end portions of the plurality of first lead wirings;

second electrode pads having an area smaller than that of the first electrode pads and arranged at end portions of the plurality of second lead wirings; and

a conductive member provided over the first substrate and connecting at least one of the first electrode pads with corresponding one of the second electrode pads,

wherein contiguous ones of the first electrode pads with each other are shifted periodically in a direction of a side of the second substrate.

5. A display device comprising:

a first substrate having a pixel matrix region;

a switching thin film transistor provided over the first substrate in the pixel matrix region;

a pixel electrode connected to the switching thin film transistor and provided over the first substrate in the pixel matrix region;

a second substrate comprising an insulator provided over the first substrate outside the pixel matrix region;

a drive circuit for driving the pixel matrix region, the drive circuit provided over the second substrate;

a plurality of first lead wirings provided outside the pixel matrix region over the second substrate and connected to the drive circuit;

a plurality of second lead wirings provided over the first substrate and extending from the pixel matrix region toward the third substrate;

first electrode pads arranged at end portions of the plurality of first lead wirings;

second electrode pads having an area smaller than that of the first electrode pads and arranged at end portions of the plurality of second lead wirings; and

a conductive member provided over the first substrate and connecting at least one of the first electrode pads with corresponding one of the second electrode pads,

wherein every three contiguous ones of the first electrode pads with each other, a unit shift arrangement thereof is repeated and has three of the first electrode pads shifted in a direction of a side of the second substrate.

6. A device according to claim 1 wherein the pixel matrix region comprises a reverse staggered thin film transistor.

7. A device according to claim 1 wherein the first substrate comprises a glass.

8. A device according to claim 1 wherein the second substrate comprises a quartz.
9. A device according to claim 1 wherein the pixel matrix region comprises a thin film transistor having a channel etch type structure.
10. A device according to claim 1 wherein the driver circuit comprises a thin film transistor comprising an activation layer having a thickness of 20 to 100 nm and comprising silicon.
11. A device according to claim 1 wherein the first substrate and the second substrate have a same thickness.
12. A device according to claim 11 wherein the first substrate and the second substrate have a thickness of 1mm.
13. A device according to claim 1 wherein the drive circuit comprises a thin film transistor having an activation layer comprising a material selected from the group consisting of a polycrystalline silicon, a microcrystal silicon, an amorphous silicon including a crystal component, and a semiamorphous silicon having a state of an intermediary between the crystalline performance and the amorphous performance.

14. A device according to claim 1 wherein the conductive member comprises a bump, an anisotropic conductive film, conductive small particles, or an FPC.

15. A device according to claim 2 wherein the pixel matrix region comprises a reverse staggered thin film transistor.

16. A device according to claim 2 wherein the first substrate comprises a glass.

17. A device according to claim 2 wherein the second substrate comprises a quartz.

18. A device according to claim 2 wherein the pixel matrix region comprises a thin film transistor having a channel etch type structure.

19. A device according to claim 2 wherein the drive circuit comprises a thin film transistor comprising an activation layer having a thickness of 20 to 100 nm and comprising silicon.

20. A device according to claim 2 wherein the first substrate and the third substrate have a same thickness.



21. A device according to claim 20 wherein the first substrate and the second substrate have a thickness of 1mm.

22. A device according to claim 2 wherein the drive circuit comprises a thin film transistor having an activation layer comprising a material selected from the group consisting of a polycrystalline silicon, a microcrystal silicon, an amorphous silicon including a crystal component, and a semiamorphous silicon having a state of an intermediary between the crystalline performance and the amorphous performance.

23. A device according to claim 2 wherein the conductive member comprises a bump, an anisotropic conductive film, conductive small particles, or an FPC.

24. A device according to claim 3 wherein the pixel matrix region comprises a reverse staggered thin film transistor.

25. A device according to claim 3 wherein the first substrate comprises a glass.

26. A device according to claim 23 wherein the second substrate comprises a quartz.

27. A device according to claim 3 wherein the pixel matrix region comprises a thin film transistor having a channel etch type structure.

28. A device according to claim 3 wherein the drive circuit comprises a thin film transistor comprising an activation layer having a thickness of 20 to 100 nm and comprising silicon.

29. A device according to claim 3 wherein the first substrate and the second substrate have a same thickness.

30. A device according to claim 29 wherein the first substrate and the second substrate have a thickness of 1mm.

31. A device according to claim 3 wherein the drive circuit comprises a thin film transistor having an activation layer comprising a material selected from the group consisting of a polycrystalline silicon, a microcrystal silicon, an amorphous silicon including a crystal component, and a semiamorphous silicon having a state of an intermediary between the crystalline performance and the amorphous performance.

32. A device according to claim 3 wherein the conductive member comprises a bump, an anisotropic conductive film, conductive small particles, or an FPC.
33. A device according to claim 4 wherein the pixel matrix region comprises a reverse staggered thin film transistor.
34. A device according to claim 4 wherein the first substrate comprises a glass.
35. A device according to claim 4 wherein the second substrate comprises a quartz.
36. A device according to claim 4 wherein the pixel matrix region comprises a thin film transistor having a channel etch type structure.
37. A device according to claim 4 wherein the drive circuit comprises a thin film transistor comprising an activation layer having a thickness of 20 to 100 nm and comprising silicon.
38. A device according to claim 4 wherein the first substrate and the second substrate have a same thickness.

39. A device according to claim 38 wherein the first substrate and the second substrate have a thickness of 1mm.

40. A device according to claim 4 wherein the drive circuit comprises a thin film transistor having an activation layer comprising a material selected from the group consisting of a polycrystalline silicon, a microcrystal silicon, an amorphous silicon including a crystal component, and a semiamorphous silicon having a state of an intermediary between the crystalline performance and the amorphous performance.

41. A device according to claim 4 wherein the conductive member comprises a bump, an anisotropic conductive film, conductive small particles, or an FPC.

42. A device according to claim 5 wherein the pixel matrix region comprises a reverse staggered thin film transistor.

43. A device according to claim 5 wherein the first substrate comprises a glass.

44. A device according to claim 25 wherein the second substrate comprises a quartz.

45. A device according to claim 5 wherein the pixel matrix region comprises a thin film transistor having a channel etch type structure.
46. A device according to claim 5 wherein the drive circuit comprises a thin film transistor comprising an activation layer having a thickness of 20 to 100 nm and comprising silicon.
47. A device according to claim 5 wherein the first substrate and the second substrate have a same thickness.
48. A device according to claim 47 wherein the first substrate and the second substrate have a thickness of 1mm.
49. A device according to claim 5 wherein the drive circuit comprises a thin film transistor having an activation layer comprising a material selected from the group consisting of a polycrystalline silicon, a microcrystal silicon, an amorphous silicon including a crystal component, and a semiamorphous silicon having a state of an intermediary between the crystalline performance and the amorphous performance.

50. A device according to claim 5 wherein the conductive member comprises a bump, an anisotropic conductive film, conductive small particles, or an FPC.

51. A device according to claim 1 wherein the second substrate has a strain point of 750°C or higher.

52. A device according to claim 2 wherein the second substrate has a strain point of 750°C or higher.

53. A device according to claim 3 wherein the second substrate has a strain point of 750°C or higher.

54. A device according to claim 4 wherein the second substrate has a strain point of 750°C or higher.

55. A device according to claim 5 wherein the second substrate has a strain point of 750°C or higher.